WE CLAIM:

1. A method for sealingly coupling a first component and a second component, the method comprising:

forming a polymer male portion attached to the first component, wherein the male portion has a first axis and a first bore extending therethrough, wherein the male portion comprises a first stop surface, a second stop surface and an annular sealing portion intermediate the first stop surface and the second stop surface;

forming a polymer female portion attached to the second component, wherein the female portion has a second axis and a second bore extending therethrough, wherein the female portion comprises a third stop surface, a fourth stop surface and an annular ring intermediate the third stop surface and the fourth stop surface;

urging the male portion towards the female portion so that at least one of the first stop surface is adjacent the third stop surface or the second stop surface is adjacent the fourth stop surface; and

subjecting the annular ring to a compressive force in an oblique direction with respect to at least one of the first axis and the second axis by contact with the annular sealing portion.

2. The method of claim 1, wherein the compressive force causes deformation of at least one of the annular ring and the annular sealing portion.

3. The method of claim 1, and further comprising clamping the male portion to the female portion so that the annular ring remains subject to the compressive force.

4. The method of claim 3, wherein the first bore is substantially aligned with the second bore when the male portion is clamped to the female portion.

5. The method of claim 1, and further comprising forming the annular sealing portion in the shape of a frustrum.

6. The method of claim 1, wherein the first stop surface and second stop surface are substantially planar and perpendicular to the first axis.

7. The method of claim 1, wherein the component to which the male portion is attached has a second male portion thereon, and wherein a recess of the female portion has a second annular ring.

8. The method of claim 7, wherein the receiving portion has a flow passage position intermediate the integral annular rings.

9. The method of claim 1, wherein the annular ring has a cross-section of a right angle corner with two surfaces.

10. The method of claim 9, wherein one of the surfaces is coaxial with the first axis.

11. The method of claim 1, wherein the male portion is integral with a valve body and the female portion is integral with a manifold.

12. The method of claim 1, wherein the male portion and the female portion are both fabricated from a fluoropolymer.

13. A method of manufacturing a coupling system for sealing connecting a first component to a second component, the method comprising:

forming a polymer male portion attached to the first component, wherein the male portion has a first axis and a first bore extending therethrough, wherein the male portion comprises a first stop surface, a second stop surface and an annular sealing portion intermediate the first stop surface and the second stop surface; and

forming a polymer female portion attached to the second component, wherein the female portion has a second axis and a second bore extending therethrough, wherein the female portion comprises a third stop surface, a fourth stop surface and an annular ring intermediate the third stop surface and the fourth stop surface, wherein the first stop surface is matable with the third stop surface to form a first seal, wherein the second stop surface is matable with the fourth stop surface to form a

second seal, and wherein the annular ring deformably engages the annular sealing portion to form a third seal when at least one of the first seal and the second seals are formed.

14. The method of claim 13, and further comprising forming the annular sealing portion in the shape of a frustrum.

15. The method of claim 13, wherein the first stop surface and second stop surface are substantially planar and perpendicular to the first axis.

16. The method of claim 13, wherein the annular ring has a cross-section of a right angle corner with two surfaces.

17. The method of claim 16, wherein one of the surfaces is coaxial with the first axis.

18. The method of claim 13, wherein the male portion is integral with a valve body and the female portion is integral with a manifold.

19. The method of claim 13, wherein at least one of the male portion and the female portion are fabricated from a fluoropolymer.

20. The method of claim 13, wherein the second bore has a width that is approximately the same as a width of the first bore.

21. The method of claim 13, wherein the male portion and the female portion are both fabricated from a fluoropolymer.